





— Institutional Controls
Excavation and Off-Site Disposal to 13'(+)' UST and B-33 to 7' (and copper to 2')

JOB NO.: 0013620 DATE: May, 2020 1 inch = 100 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	SOIL ALTERNATIVE 2 - INSTITUTIONAL CONTROLS AND LNAPL REMOVAL	Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, © 2020 Microsoft Corporation © 2020	 0 25 50 100 Feet	 300 Paxon Center Blvd., Suite 800 Pittsburgh, Pennsylvania 15236 www.woodwardcurran.com
FIGURE 5-1	Newark, New Jersey		Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet		



Institutional Controls

Excavation and Off-Site Disposal to 13'(+), UST and B-33 to 7' (and copper to 2')

Engineering Controls - Cap (Existing building's concrete ground floor is part of cap).

Bulkhead Wall

Note: Building demolition is not required or incorporated in this alternative.

<div>JOB NO.: 0013620</div> <div>DATE: May, 2020</div> <div>1 inch = 100 feet</div> <div>SHEET: OF</div>	<div>RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE</div>	<div>SOIL ALTERNATIVE 3 - INSTITUTIONAL CONTROLS, ENGINEERING CONTROLS, AND LNAPL REMOVAL</div>	<div>Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, © 2020 Microsoft Corporation © 2020</div>	<div></div> <div></div>	<div><div>300 Paxon Center Blvd. Suite 800 Pittsburgh, Pennsylvania 15236 www.woodwardcurran.com</div></div>
<div>FIGURE 5-2</div>	<div>Newark, New Jersey</div>		<div>Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet</div>		<div><small>*Third Party (2020) Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon this map or data contained herein shall be at the user's sole risk.</small></div>



— Institutional Controls

Excavation and Off-Site Disposal to 13'(+), UST and B-33 to 7' (and copper to 2')

Excavation and Off-Site Disposal to 6' - Lead, Arsenic, and Benzene

Engineering Controls - Cap (Existing building's concrete ground floor is part of cap).

— Bulkhead Wall

Note: Building demolition is not required or incorporated in this alternative.



Institutional Controls

In-Situ Treatment to 2' - B(a)P

In-Situ Treatment to 10' - B(a)P

In-Situ Treatment to 10' (and Post-Treatment Capping) - Lead and PCB 1260



In-Situ Treatment to 11' (and Post-Treatment Capping) - Lead, Arsenic, and Benzene

Excavation and Off-Site Disposal to 13'(+)
UST and B-33 to 7' (and copper to 2')

Excavation and Off-Site Disposal to 2' - Copper



Bulkhead Wall

Note: Portions of Lots 67 and 69 not treated will be capped.




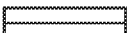


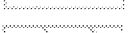

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<div>FIGURE 5-4</div>	<div>Newark, New Jersey</div>		<div>Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet</div>		<div><small>*Third Party (2020) Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon this map or data contained herein shall be at the user's sole risk.</small></div>






- Institutional Controls
- ▨ Excavation and Off-Site Disposal to 2' - B(a)P
- ▧ Excavation and Off-Site Disposal to 10' - B(a)P
- ▩ Excavation and Off-Site Disposal to 10' - Lead and PCB 1260
- ▤ Excavation and Off-Site Disposal to 11' - Lead, Arsenic, and Benzene
- ▦ Excavation and Off-Site Disposal to 13'(+)- UST and B-33 to 7' (and copper to 2')
- ▧ Excavation and Off-Site Disposal to 2' - Copper
- Bulkhead Wall

JOB NO.: 0013620 DATE: May, 2020 1 inch = 100 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	SOIL ALTERNATIVE 6 - INSTITUTIONAL CONTROLS, REMOVAL AND OFF-SITE DISPOSAL, AND LNAPL REMOVAL	Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, © 2020 Microsoft Corporation © 2020	 0 25 50 100 Feet	 300 Paxon Center Blvd. Suite 800 Pittsburgh, Pennsylvania 15236 www.woodwardcurrant.com
FIGURE 5-5	Newark, New Jersey		Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet		





-  Institutional Controls
-  Excavation, Ex-Situ Treatment and On-Site Placement to 2' - B(a)P
-  Excavation, Ex-Situ Treatment and On-Site Placement to 10' - B(a)P
-  Excavation, Ex-Situ Treatment and On-Site Placement to 10' - Lead and PCB 1260
-  Excavation, Ex-Situ Treatment and On-Site Placement to 11' - Lead, Arsenic, and Benzene
-  Excavation and Off-Site Disposal to 13'(+)-UST and B-33 to 7' (and copper to 2')
-  Excavation, Ex-Situ Treatment and On-Site Placement to 2' - Copper
-  Bulkhead Wall

JOB NO.: 0013620 DATE: May, 2020 1 inch = 100 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	SOIL ALTERNATIVE 7 - INSTITUTIONAL CONTROLS, EX SITU TREATMENT AND ON-SITE PLACEMENT, ENGINEERING CONTROLS, AND LNAPL REMOVAL	Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, © 2020 Microsoft Corporation © 2020 Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet	 	 <small>300 Paxon Center Blvd. Suite 800 Pittsburgh, Pennsylvania 15236 www.woodwardcurran.com</small> <small>*Third Party Data Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the user's sole risk.</small>
FIGURE 5-6	Newark, New Jersey				



Legend

- Underground Storage Tanks
- Site Boundary
- Site Lots
- Footprint Engineering Control
- Footprint of Groundwater Alternative 2 (Institutional Controls and Monitored Natural Attenuation)

JOB NO.: 0013620 DATE: June, 2020 1 inch = 100 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	Groundwater Alternative 2: Institutional Controls, Site Containment at River Edge and Monitored Natural Attenuation	© 2020 Microsoft Corporation © 2020 DigitalGlobe ©CNES (2020) Distribution Airbus DS	 0 25 50 100 Feet	 300 Plover Center 20th Suite 800 Pittsburgh, Pennsylvania 15222 www.woodwardcurran.com
FIGURE 5-7	Newark, New Jersey		Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet		

(Organics, Shallow)



(Metals, Shallow)





(Organics, Deep)



(Metals, Deep)



- Legend
- Extraction Well (Organics Only)
 - Extraction Well (Organics and Metals)
 - Monitoring Wells
 - Sump Pump
 - Site Boundary
 - Site Lots
 - Underground Storage Tanks
 - Footprint Engineering Control

JOB NO.: 0013620 DATE: June, 2020 1 inch = 160 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	Groundwater Alternative 3: Institutional Controls, Site Containment at River Edge, and Pump and Treat	© 2020 Microsoft Corporation © 2020 DigitalGlobe ©CNES (2020) Distribution Airbus DS	 0 40 80 120 Feet	 300 Perimeter Drive Suite 800 Pittsburgh, Pennsylvania 15235 www.woodwardcurran.com
FIGURE 5-8	Newark, New Jersey		Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet		

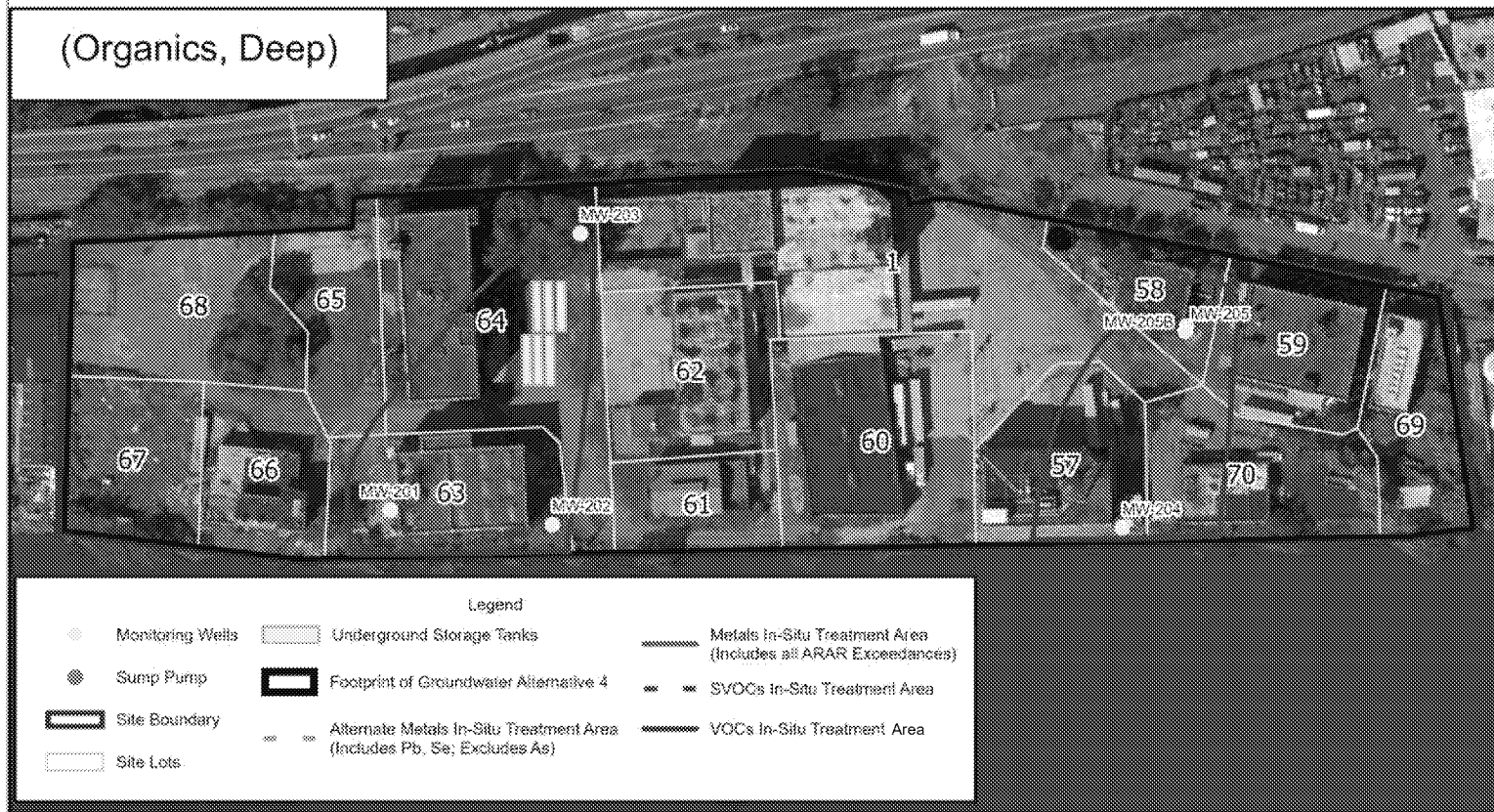
(Organics, Shallow)



(Metals, Shallow)



(Organics, Deep)



(Metals, Deep)

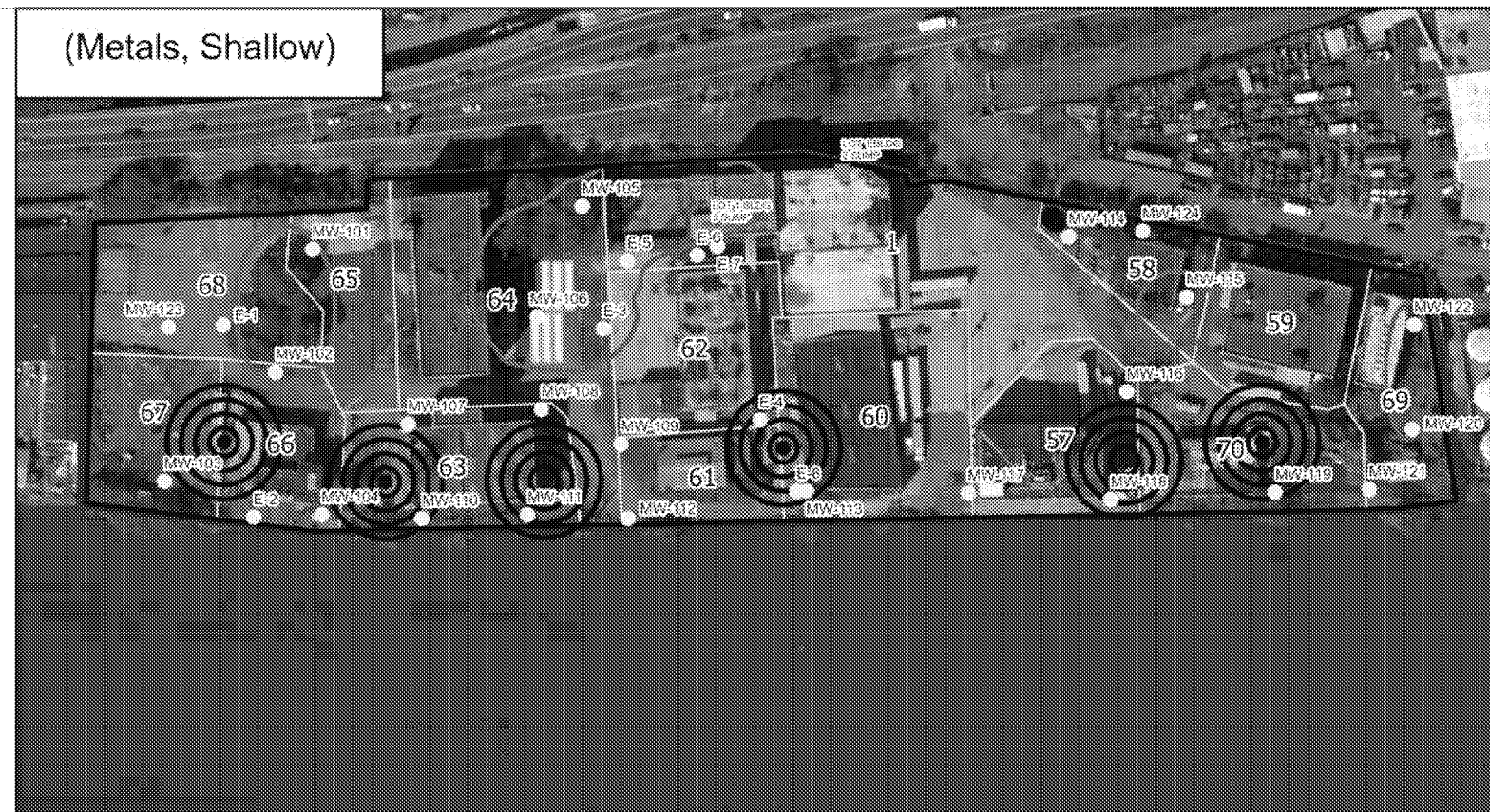


<p>JOB NO.: 0013620</p> <p>DATE: June, 2020</p> <p>1 inch = 160 feet</p> <p>SHEET: OF</p>	<p>RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE</p>	<p>Groundwater Alternative 4: Institutional Controls and In-Situ Remediation</p>	<p>© 2020 Microsoft Corporation © 2020 DigitalGlobe ©CNES (2020) Distribution Airbus DS</p>	<p>Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet</p>	<p>WOODWARD & CURRAN</p> <p>300 Perimeter Center Drive Suite 800 Pittsburgh, Pennsylvania 15235 www.woodwardcurran.com</p>
<p>FIGURE 5-9</p>	<p>Newark, New Jersey</p>				

(Organics, Shallow)



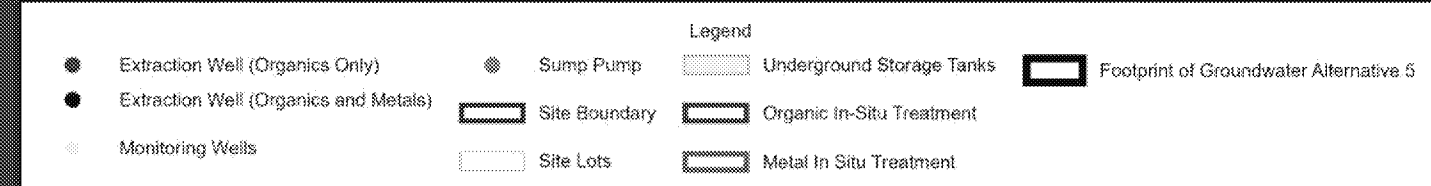
(Metals, Shallow)





(Organics, Deep)



(Metals, Deep)





JOB NO.: 0013620 DATE: June, 2020 1 inch = 160 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	Groundwater Alternative 5: Institutional Controls, In-Situ Remediation, and Targeted Pump and Treat	© 2020 Microsoft Corporation © 2020 DigitalGlobe ©CNES (2020) Distribution Airbus DS	 0 40 80 120 Feet	 300 Perimeter Drive Suite 800 Pittsburgh, Pennsylvania 15235 www.woodwardcurran.com
FIGURE 5-10	Newark, New Jersey		Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet		



Legend

- Monitoring Wells
- Underground Storage Tanks
- Site Boundary
- Site Lots
- Deep Groundwater In-Situ Treatment Area
- Shallow Groundwater In-Situ Treatment Area
- Footprint of Engineering Control (River Edge)
- Footprint of Groundwater Alternative 6 (Institutional Controls and Monitoring Natural Attenuation)

JOB NO.: 0013620 DATE: June, 2020 1 inch = 100 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	Groundwater Alternative 6: Institutional Controls, Site Containment at River Edge and Focused In-Situ Remediation	© 2020 Microsoft Corporation © 2020 DigitalGlobe ©CNES (2020) Distribution Airbus DS	 0 25 50 100 Feet	 300 Plover Center 2nd Suite 800 Pittsburgh, Pennsylvania 15205 www.woodwardcurran.com
FIGURE 5-11	Newark, New Jersey		Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet		



Legend

- Underground Storage Tanks
- Site Boundary
- Site Lots
- Footprint of Engineer Control (Site Containment)
- Footprint of Groundwater Alternative 7

<div><div>JOB NO.: 0013620</div><div>DATE: June, 2020</div><div>1 inch = 100 feet</div><div>SHEET: OF</div></div>	<div>RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE</div> <div>Newark, New Jersey</div>	<div>Groundwater Alternative 7: Institutional Controls and Site Containment</div>	<div>© 2020 Microsoft Corporation © 2020 DigitalGlobe ©CNES (2020) Distribution Airbus DS</div> <div>Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet</div>	<div></div> <div></div>	<div><div>300 Plover Center 20th Suite 800 Pittsburgh, Pennsylvania 15222 www.woodwardcurran.com</div></div> <div><small>*Third Party GIS Data Disclaimer: This map is for informational and graphical purposes only and should not be relied upon by third parties for any legal disputes. Any reliance upon this map or data contained herein shall be at the user's sole risk.</small></div>
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Institutional Controls

Air Monitoring or Engineering Controls (existing occupied buildings)

✱

Shallow Groundwater VISL Exceedance. Existing or future buildings within 100-foot radius from monitoring well will warrant further investigation for potential vapor intrusion or institutional controls. Areas are based on current data. Boundary would be delineated from the edge of the plume, per NJDEP guidance.

JOB NO.: 0013620 DATE: May, 2020 1 inch = 100 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	SOIL GAS ALTERNATIVE 2 - INSTITUTIONAL CONTROLS, AIR MONITORING OR ENGINEERING CONTROLS (EXISTING OCCUPIED BUILDINGS) AND SITE-WIDE ENGINEERING CONTROLS (FUTURE BUILDINGS)	Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, © 2020 Microsoft Corporation © 2020		
FIGURE 5-13	Newark, New Jersey		Spatial Reference Name: NAD 1983 StatePlane New Jersey FIPS 2900 Feet		




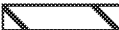
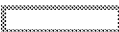


- Institutional Controls
- Site-Wide Engineering Controls (future buildings)
- Air Monitoring or Engineering Controls
- In-Situ Remediation



Shallow Groundwater VISL Exceedance. Existing or future buildings within 100-foot radius from monitoring well will warrant further investigation for potential vapor intrusion or institutional controls. Areas are based on current data. Boundary would be delineated from the edge of the plume, per NJDEP guidance.

JOB NO.: 0013620 DATE: May, 2020 1 inch = 100 feet SHEET: OF	RIVERSIDE INDUSTRIAL PARK SUPERFUND SITE	SOIL GAS ALTERNATIVE 3 - INSTITUTIONAL CONTROLS, SITE-WIDE ENGINEERING CONTROLS (FUTURE BUILDINGS), AND AIR MONITORING OR ENGINEERING CONTROLS AND IN-SITU REMEDIATION OF SOIL/FILL (EXISTING OCCUPIED BUILDINGS)	Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, © 2020 Microsoft Corporation © 2020		300 Paxon Center Blvd. Suite 800 Pittsburgh, Pennsylvania 15236 www.woodwardclay.com
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-  Institutional Controls
-  Site-Wide Engineering Controls (future buildings)
-  Air Monitoring or Engineering Controls
-  Removal and Off-Site Disposal (existing occupied buildings)
-  Shallow Groundwater VISL Exceedance. Existing or future buildings within 100-foot radius from monitoring well will warrant further investigation for potential vapor intrusion or institutional controls. Areas are based on current data. Boundary would be delineated from the edge of the plume, per NJDEP guidance.

JOB NO.: 0013620
 DATE: May, 2020
 1 inch = 100 feet
 SHEET: OF

FIGURE 5-15

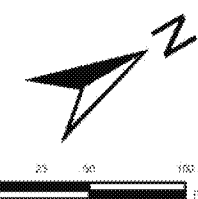
RIVERSIDE INDUSTRIAL PARK
 SUPERFUND SITE

Newark, New Jersey

SOIL GAS ALTERNATIVE 4 - INSTITUTIONAL CONTROLS,
 SITE-WIDE ENGINEERING CONTROLS (FUTURE
 BUILDINGS), AND AIR MONITORING OR ENGINEERING
 CONTROLS AND REMOVAL AND OFF-SITE DISPOSAL OF
 SOIL/FILL (EXISTING OCCUPIED BUILDINGS)

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Legend:

- Institutional Controls
- Site-Wide Engineering Controls (future buildings)
- Air Monitoring or Engineering Controls
- Ex-Situ Treatment and On-Site Placement (existing occupied buildings)

Shallow Groundwater VISL Exceedance: Existing or future buildings within 100-foot radius from monitoring well will warrant further investigation for potential vapor intrusion or institutional controls. Areas are based on current data. Boundary would be delineated from the edge of the plume, per NJDEP guidance.